

Transport Stakeholders Unified Stakeholders Group (TSUSG)

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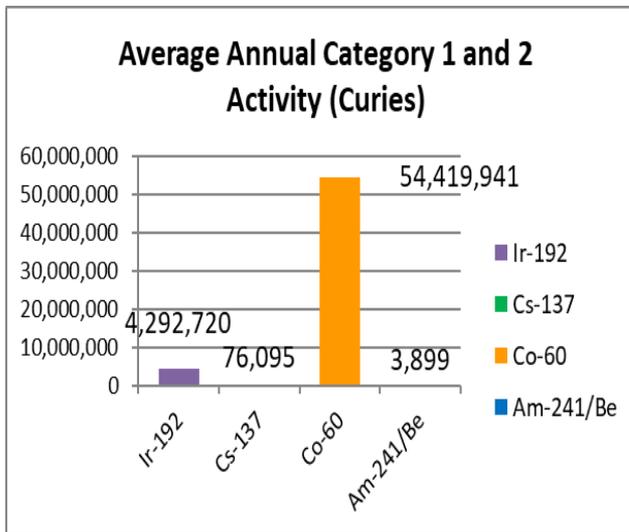
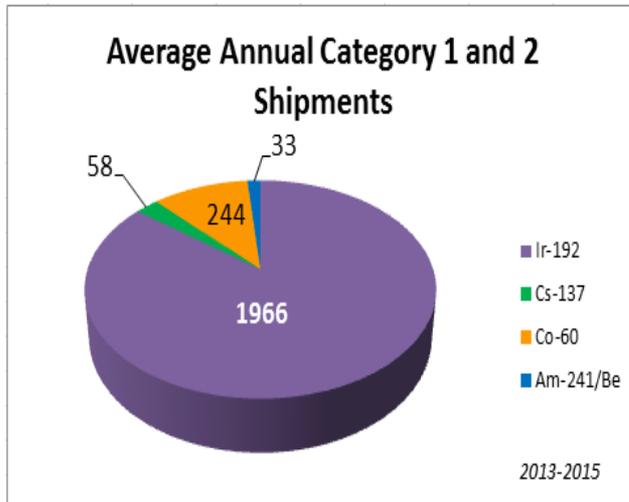
Southern States Energy Board –
Radioactive Material
Transportation Committee
Meeting

ORNL is managed by UT-Battelle, LLC
for the US Department of Energy

Background

- **ORNL conducted a transport security assessment of domestic source transportation FY18**
- **The scope of the assessment was limited to Category 1 and Category 2 isotopes of Cobalt-60, Cesium-137, Americium-241 and Iridium-192**
- **The assessment characterized domestic source transports and provided a qualitative evaluation of the effectiveness of transport security approaches**
- **The security assessment was conducted based upon:**
 - **U.S. Laws and regulations**
 - **Interviews with prominent motor carriers**
 - **Interviews and input from source producers**
 - **Typical RAM specific activities, packaging, volume, and routes**

U.S. Source Transport Volume and Activities are Significant



Source: NRC RAMQC Database

- Since 2003, approx. 650 million curies shipped. Presently averaging ~60 million curies per year
- Ir-192 represents 85.4% of the total average annual shipments
- Cobalt-60 represents 93% of the total number of curies shipped each year
- Average Co-60 shipment is 223,000 curies
- Average annual Cs-137 transported is 76,000 curies; averaging 1,520 curies per shipment
- Number of shipments expected to increase over the next 10 years

ORNL's Assessment Findings

While current domestic transport security of Category 1 and Category 2 sources has to date been successful, the results of the assessment revealed the following potential security vulnerabilities:

- **Physical Protection Measures**
- **Insider Threat Potential**
- **Response Training**
- **Cyber Security**
- **Risk Management**

Factors Impacting System Effectiveness

- **Insiders**. Insiders are essential to the adversary
- **Physical Protection Measures**
 - Local/remote disablement not required
 - Automated detection and assessment of cargo intrusion not required
 - Duress alarms may be inadequate or non-existent
 - Delays may be inadequate to compensate for response times
- **Response**. Response time is a significant concern
- **Regulatory Structure**. The regulatory structure in the U.S. is complex – may lead to gaps in implementation, interpretation, and integration
- **Training Program**. U.S. lacks a well-defined training program
- **Cyber Security**. Cyber security likely an issue
- **Risk Management**. Industry may not be capable to self-identify and correct vulnerabilities



Source: National Sheriffs Association 2016

What is the TSUSG?



ORNL works with government, law enforcement and industry to reduce radiological risk by providing security technologies, expertise and training

Through the collaboration of these domestic and Canadian stakeholders the Transportation Security Unified Stakeholders Group or TSUSG was created to form a strong alliance to enhance current transport security of Category 1 and Category 2 sources

TSUSG Strategic Priorities:

- **Establish a Unified Stakeholder Group** – Enhanced Protection through Cooperation and Collaboration
- **Enable Containment** – Detect, Delay, and Respond
- **Explore Insider Threat Concepts** – Recognize, Mitigate and Revise
- **Enhance Domestic Transport Security Training Programs** – Create a Knowledgeable and Skilled Workforce
- **Improve Analytical Capabilities** – Identify Weaknesses and Design Effective Solutions

How does TSUSG work?

- **The group provides a forum to facilitate identification and resolution of security concerns related to the transport of Category 1 and Category 2 sources. The group's operational approach is to identify; facilitate common understanding; implement available technology and procedural enhancements to create a "best practices" approach to improve or resolve transport security issues and problems**
- **At the conclusion of the inaugural TSUSG meeting, held on September 10-11, 2019, the transport security issues identified had been prioritized. The top six (6) were delegated to individual Priority Committees for collaborative review and resolution.**
- **Priority Committee activities are conducted, through a TSUSG Priority Committee Coordinator with a team of emergency, government and industry representatives, and ORNL Support staff. Work is conducted via conference calls, E-mail and webinar.**
- **Action plans have been developed with quarterly progress reports posted on the TSUSG website for review and further comment by membership until the item is resolved and concluded**

ORNL and TSUSG Member Responsibilities

ORNL

Oak Ridge National Laboratory, in support of the Office of Radiological Security, is responsible for the administration of TSUSG activities, which includes sending announcements; soliciting input from members and professional organizations; preparing agendas; coordinating, moderating group communications/conference calls; and preparing Priority Committee reports and a TSUSG Annual Report.

TSUSG Members

Members will normally provide their personal time, organize travel and cover related expenses. They will be fully prepared for all meetings, calls and other interactions. Work will be performed collaboratively with other group members until the priority item is addressed and all action items are concluded.

Current TSUSG Priority Items

- **P1: Establish, collect, and share best practices for shippers, carriers, regulators, and law enforcement**
- **P2: Develop clear guidance on radioactive source shipping roles and responsibilities including communication protocols and the harmonization of security plans**
- **P3: Develop and standardize a unified security plan (template)**
- **P4: Define the mission (Charter) of the TSUSG and outputs to higher authorities/decision makers**
- **P5: Review operational procedures and differences in how escorts are handled from state to state (overt vs. covert); identify potential training needs**
- **P6: Insider threat identification, awareness and mitigation with respect to analysis and training**

Questions?